

Applicant : Billington et al.
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REMARKS

This amendment is responsive to the Office Action dated July 19, 2001. No fee is believed to be due, but if there is a fee deficiency please charge deposit account no. 06-1050.

Claims 1-7 and 21-24 have been cancelled, and claims 29-32 have been added. Claims 8-20 and 25-32 are pending.

Applicant's remarks, below, are preceded by quotations of the related comments of the examiner, in small, bold-face type.

Claim Rejections - 35 USC §102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless--

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Morun (US 5,566,807). Morun discloses the vending machine as follows.

As described in Claims 1 and 8-10, 12, 14-18, 20-24 and 26;

1. **a vending machine (1) operable to accept payments in units of different denominations, to perform vends, and to dispense change corresponding to the difference between payments and vend prices;**

2. **a vending machine further operable in response to determining that insufficient change is available (see figure 8, element 900), either (i) to dispense a lesser amount of change or (ii) to inhibit a requested vend (see figure 9, element 1002), depending on whether the difference between the available change and the correct change is equal to or less than a predetermined allowable overpay amount (see figure 7),**

3. **the vending machine has means permitting alteration of a stored parameter defining the predetermined allowable overpay amount (see figure 5, elements (420 and 430));**

As described in Claims 2, 8, 17 and 19-21, 25 and 27;

4. **the vending machine is operable to provide a warning indication prior to initiation of a transaction if the available change meets a predetermined criterion (95) (see also col. 11, lines 3-24);**

As described in Claim 3;

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5. the warning indication is provided only if the allowable overpay amount is non-zero (note that the warning indication as described in col. 11, lines 3-24 will not be provided where the customer submits an amount that is the price of the item desired).

As described in Claim 4;

6. said predetermined criterion is met when the available change is less than the value of the lowest denomination non-refundable payment unit (see figure 8);

As described in Claims 5 and 8;

7. said vending machine is operable to provide an "exact change" indication to a customer when a requested vend is inhibited (again, note display (95), thereby providing ability and capability to display such information);

As described in Claims 6, 11 and 28;

8. the machine is operable, when inhibiting a vend, to permit the customer to request a vend at a different price (note that the customer is capable of requesting a vend at a different price when the machine becomes disabled (1106)).

As described in Claim 7;

9. the machine is operable to reject a non-refundable payment unit in response to determining that accepting the unit would result in the difference between a credit value and the amount of refundable change exceeding said predetermined allowable overpay amount (see figure 8);

As described in Claim 13;

10. the circumstances giving rise to the second indication also cause the deposited monetary unit to be refunded (see figures 10a and 10b);

Claims 1-7 and 21-24 have been cancelled.

The Morun patent, which is assigned to the assignee of the present application, discloses a coin acceptance method and apparatus. However, referring to present claim 8, Morun does not teach a display means for providing first and second indications that insufficient change may be available to a customer. Claim 8 further requires that the first indication is given as a warning prior to a transaction being initiated and the second indication is given after a transaction has been initiated, each indication being produced in response to the detection of a respective set of conditions. Such limitations are absent in Morun, and thus claim 8 is not anticipated. Since

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claims 9-15 all directly or indirectly depend on claim 8 they also should be allowable for at least the same reasons.

Independent claim 16 includes a display means that can "provide a first indication when the amount of available change is less than the value of the highest-denomination coin storable in the second store, and a second indication when the amount of the received payment exceeds the available change by more than a predetermined allowable overpay amount". Providing a display means operable to provide two indications under such conditions is not taught in the Morun patent, and thus claim 16 is not anticipated.

Independent claim 17 is similar to claim 16, but recites that the display means can "provide a first indication when the amount of available change is less than the value of the highest-denomination coin storable in the second store, and a second indication when the difference between a credit value and a vend price exceeds the available change by more than a predetermined allowable overpay amount". The applicant again respectfully asserts that Morun does not disclose such a display means, and thus claim 17 is not anticipated. Since claims 18 and 19 depend upon claims 16 or 17, they should also be allowable for at least the same reasons.

Independent claim 20 recites a vending machine having a display means that, in response to a product selection where the predetermined allowable overpay amount is exceeded, displays an "insufficient change" indication and allows selection of a product of a different price to enable a purchase. In contrast, the Morun patent teaches to inhibit acceptance of an inserted coin if insufficient change is available, and does not disclose to issue a warning so that the customer may select a product of a different price. Thus, claim 20 is not anticipated.

Independent claim 25 recites that a vending machine is operable to prevent acceptance of a monetary unit in dependence of the availability of monetary units for dispensing as change, and that the machine is able to give an indication to a customer in response to the receipt of a monetary unit which is so prevented from being accepted. In contrast, Morun teaches that the vending machine may instruct customers to deposit lower denomination coins first to increase the probability of accepting non-tubed high-value coins. However, Morun does not suggest or describe to provide an indication in response to the receipt of a particular coin. Thus, since this feature is absent in Morun, claim 25 is not anticipated. Since claims 26-28 all directly or indirectly depend on claim 25, they should also be allowable for at least the same reasons.

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In view of the above remarks, the applicant respectfully requests withdrawal of the 35 U.S.C. §102(b) rejection of claims 8-20 and 25-28.

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless —

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

5. Claims 1-28 are rejected under 35 U.S.C. 102(a) as being anticipated by Tedesco et al (US 6,085,888). Tedesco et al discloses the vending machine as follows.

As described in Claims 1 and 8-10, 12, 14-18, 20-24 and 26;

1. a vending machine (100) operable to accept payments in units of different denominations, to perform vends, and to dispense change corresponding to the difference between payments and vend prices;

2. a vending machine further operable in response to determining that insufficient change is available (see figure 8a, element 820), either (i) to dispense a lesser amount of change or (ii) to inhibit a requested vend (see figure 8a, element 822), depending on whether the difference between the available change and the correct change is equal to or less than a predetermined allowable overpay amount; (Note that the amount of overpay can be reasonably construed as being that amount in excess of the amount needed to purchase an item, and that said price of said item can be reasonably construed as being a predetermined amount. Therefore, any amount above the item price is predetermined to be an overpay.)

3. the vending machine has means permitting alteration of a stored parameter defining the predetermined allowable overpay amount (see figure 1b, noting processor (144) which necessarily allows input and storage of item prices);

As described in Claims 2, 8, 17 and 19-21, 25 and 27;

4. the vending machine is operable to provide a warning indication prior to initiation of a transaction if the available change meets a predetermined criterion (see figure 8a, elements (820 and 822));

The Tedesco et al. patent (U.S. Patent No. 6,085,888) relates to a method of subscription vending. The method allows customers who frequently make purchases at a vending machine to receive items without paying every time the customer requires an item. Instead, the customer registers a subscription once to purchase a plurality of items dispensed by a vending machine

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within a predetermined period of time. However, the Tedesco et al. vending machine is not capable of determining whether sufficient change is available for purchase.

In stark contrast, independent claims 8, 16 and 17 recite a display means that provides first and second indications of insufficient change in response to detecting a respective set of conditions. Further, independent claim 20 recites a vending machine with a display means that operates to inhibit a vend if an allowable overpay amount is exceeded, display an "insufficient change" indication, and allows selection of a product of a different price, which is not taught in Tedesco et al. Lastly, independent claim 25 recites a vending machine with display means that provides an indication to a customer in response to a monetary unit that is prevented from being accepted, which is not disclosed by Tedesco et al. Thus, since Tedesco et al. fails to disclose the features of independent claims 8, 16, 17, 20 and 25 as explained above, these claims are not anticipated. In addition, dependent claims 9-15, 18, 19 and 26-28 should also be allowable for at least the same reasons.

In view of the above remarks, withdrawal of the 35 U.S.C. §102(a) rejection based on Tedesco et al. is requested.

6. Claims 1-28 are rejected under 35 U.S.C. 102(a) as being anticipated by Ramsey et al (US 6,055,521). Ramsey et al discloses the vending machine as follows.

As described in Claims 1 and 8-10, 12, 14-18, 20-24 and 26;

1. a vending machine (35) operable to accept payments in units of different denominations, to perform vends, and to dispense change corresponding to the difference between payments and vend prices;
2. a vending machine further operable in response to determining that insufficient change is available (see figures 5, 15a and 15b), either (i) to dispense a lesser amount of change or (ii) to inhibit a requested vend, depending on whether the difference between the available change and the correct change is equal to or less than a predetermined allowable overpay amount; (Note that the amount of overpay can be reasonably construed as being that amount in excess of the amount needed to purchase an item, and that said price of said item can be reasonably construed as being a predetermined amount. Therefore, any amount above the item price is predetermined to be an overpay.)
3. the vending machine has means permitting alteration of a stored parameter defining the predetermined allowable overpay amount (note that PC (27) necessarily allows input and storage of item prices);

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As described in Claims 2, 8, 17 and 19-21, 25 and 27;

4. the vending machine is operable to provide a warning indication prior to initiation of a transaction if the available change meets a predetermined criterion (see figures 5, 15a and 15b);

Ramsey et al. relates to a system for selling and dispensing fluids with change making capabilities, which may be used for unattended sale and dispensing of motor fuels. The system includes a currency and/or coin dispenser for providing the purchaser with change for his purchase. However, Ramsey et al. does not disclose or suggest that the system is capable of determining whether sufficient change is available. Furthermore, there is no suggestion or disclosure that the system can dispense a lesser amount of change or that a vend or acceptance of a coin is inhibited when not enough change is available. Neither is there any description of a vending machine giving an indication to the customer to inform him of insufficient change. Consequently, since all of the independent claims 8, 16, 17, 20 and 25 include one or more of those features which are absent from the Ramsey et al. system, these claims are not anticipated. In addition, dependent claims 9-15, 18, 19 and 26-28 should also be allowable for at least the same reasons.

Furthermore, it should be noted that the Ramsey et al. system is not suitable to implement a system which works according to the present invention for the following reasons. Ramsey et al. describes that a customer may choose to buy any quantity of fuel up to the price which is equal to the amount of money inserted into the machine. Thus, the sale cannot be inhibited by the machine and no indication of the situation can be given if there is no suitable amount of change available because the vending price of a particular sale cannot be known to the system before the sale actually takes place.

In view of the above remarks, the applicant respectfully requests withdrawal of the 35 U.S.C. §102(a) rejection based on Ramsey et al.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Teicher (US 5,728,999) and (US 6,102,162); Martin et al; Brown et al; Tedesco et al (US 5,988,346) are all cited as examples of customer transaction systems.

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The prior art of record and not relied upon has not been discussed herein as none of these references were applied to any of the claims.

Double Patenting

8. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 213 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-28 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 1-15 of copending Application No. 09/528,255. Although the conflicting claims are not identical, they are not patentably distinct from each other because the scaling factor described in the claims of the '255 patent can be reasonably construed by those ordinarily skilled in the art as the functional equivalent of the "overpayment amount" described in the claims of the present application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

The applicant respectfully traverses the provisional nonstatutory double patenting rejection.

Although the present claims and those of U.S. application no. 09/528,255 relate in certain aspects to accepting coins or inhibiting acceptance of coins, U.S. application 09/528,255 relates predominantly to scaling factors. A variable scaling factor is used in order to efficiently exchange information between a money validator and other parts of a vending machine, as for example a vend controller. The vend controller may for example be informed of every coin which is found to be acceptable by the money validator. A signal is sent to the vend controller indicating the value of the accepted coin. It is advantageous to transmit this piece of information

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with the smallest possible usage of resources. In order to ensure that only the smallest possible amount of bits are required, the value of the coins is given in units of the so-called scaling factor. The scaling factor may, for example, be defined as the highest common divider of the values of a set of coins.

According to U.S. application 09/528,255, a predetermined scaling factor is used to select a suitable sub-set of coins that will then be accepted by a money validator. Alternatively, a scaling factor is calculated by the validator from a set of coins, which are to be accepted by the validator. The overpayment amount of the present invention is therefore not equivalent to a scaling factor as defined in the 09/528,255 application.

In view of the above remarks, withdrawal of the provisional double patenting rejection is requested.

New Claims 29-32

New claims 29-32 have been added, and claim 29 recites a vending machine that includes means for accepting payments, means for providing a warning indication prior to initiating a transaction, and means for permitting attention of a stored parameter defining an allowable overpay amount. Support for claim 29 can be found, for example, on page 2, line 14 to page 5, line 3 of the application. No new matter has been added. Claim 29 is believed to be allowable over the cited art because none of the references suggests or teaches to provide a warning indication prior to initiating a transaction if the allowable overpay amount is non-zero. Consequently, dependent claims 30-32 should also be allowable for at least the same reasons.

Attached is a marked-up version of the changes being made by the current amendment.


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In view of the above amendments and remarks, the applicant asks that all claims be allowed. Please apply any other charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

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Version with markings to show changes made

In the claims:

Claims 1-7 and 21-24 have been cancelled.

New claims 29-32 have been added as follows:

29. (New) A vending machine comprising:

means for accepting payments in units of different denominations, for performing vends, for determining that insufficient change is available, and for dispensing change, wherein if insufficient change is available then either (i) a lesser amount of change is dispensed or (ii) a requested vend is inhibited depending on whether the difference between the available change and the correct change is equal to or less than a predetermined allowable overpay amount;

means for providing a warning indication prior to initiating a transaction if the available change meets a predetermined criteria and if the allowable overpay amount is non-zero; and

means for permitting alteration of a stored parameter defining the allowable overpay amount.

b/ 30. (New) A vending machine as claimed in claim 29, wherein the predetermined criterion is met when the available change is less than the value of the lowest denomination non-refundable payment unit.

31. (New) A vending machine as claimed in claim 29, which is operable to provide an "exact change" indication to a customer when a requested vend is inhibited.

32. (New) A vending machine as claimed in claim 31, wherein the machine is operable, when inhibiting a vend, to permit the customer to request a vend at a different price.
